



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,031	08/20/2001	Mary A. Ericksen	56091US002	7794

32692 7590 03/14/2006

3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

EXAMINER

NORDMEYER, PATRICIA L

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/934,031

Applicant(s)

ERICKSEN, MARY A.

Examiner

Patricia L. Nordmeyer

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-22, 38-42 and 44-59 is/are pending in the application.
- 4a) Of the above claim(s) 15-22 and 38-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 42 and 44-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08).
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Withdrawn Rejections

1. Any rejections and or objections, made in the previous Office Action, and not repeated below, are hereby withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 44 – 47 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seber (USPN 4,745,916) in view of Harper et al. (USPN 4,102,562).

Seber discloses a single layer article (Column 2, lines 43 – 45; Figure 2, #14; Figure 4, #24) made with a non-woven backing have reflective qualities (Column 2, lines 55 – 68), wherein the single layer article has an adhesive side coated with pressure sensitive adhesive and a non-adhesive side (Column 2, lines 45 – 49; Figure 2, #16; Figure 4, #26) for the purpose of having a light glare reflective tape that is non-toxic, hypo-allergenic and non-irritating to the skin areas to which they are applied (Column 1, lines 43 – 46). However, Seber fails to disclose a layer of retroreflective beads that are partially embedded in the non-adhesive side of the single

Art Unit: 1772

layer backing, wherein the layer of retroreflective beads is substantially held in place in the non-adhesive side of the single layer backing without the use of an additional adhesive or resin.

Harper et al. teach a backing (Figure 1, #10) comprising a support layer (Figure 1, #13) and a heat softenable layer (Figure 1, #14) that acts as a non-adhesive side and a layer of retroreflective beads that are partially embedded in the non-adhesive side of the single layer backing to about 30% of the diameters (Figure 1, #11; Column 3, lines 39 – 41), wherein the layer of retroreflective beads is substantially held in place in the non-adhesive side of the single layer backing without the use of an additional adhesive or resin (Figure 1, #11; Column 3, lines 39 – 41) for the purpose forming retroreflective images on a substrate including fabrics as well as other substrates (Column 1, lines 58 – 59).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the single layer of retroreflective beads in Seber in order to form retroreflective images on a substrate including fabrics as well as other substrates as taught by Harper et al.

With regard to the limitation of the tape being a medical tape in claim 44, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative

Art Unit: 1772

difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

With regard to claims 45 – 47 and 59, one of ordinary skill in the art would have recognized the claimed retroreflective article would have a reflective brightness of the beads would be greater than 70 or 90% after 750 or 5,000 abrasion cycles since Harper et al. teach articles with retroreflective microspheres embedded in the non-adhesive side. Therefore, one of ordinary skill in the art would have readily determined the optimum reflective brightness after the abrasion cycles depending on the end desired results in the absence of unexpected results.

4. Claims 42 and 48 - 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over May (USPN 4,648,689) in view of Harper et al. (USPN 4,102,562).

May disclose a backing material having a layer chosen from a closed-cell cross-linked foam material chosen from a variety of materials including polyurethane, silicone rubber, ethylene propylene diene terpolymer or neoprene (Column 3, lines 34 – 37) with microspheres, glass beads with an aluminum coating (Column 3, lines 47 – 49), embedded in the surface of the polymeric sheet in a retroreflective article (Column 2, line 26) for the purpose of forming an article that compresses under pressure while being of high reflectivity and good durability (Column 2, lines 5 – 7). However, May fails to disclose a layer of retroreflective beads that are partially embedded in the non-adhesive side of the single layer backing, wherein the layer of

Art Unit: 1772

retroreflective beads is substantially held in place in the non-adhesive side of the single layer backing without the use of an additional adhesive or resin.

Harper et al. teach a backing (Figure 1, #10) comprising a support layer (Figure 1, #13) and a heat softenable layer (Figure 1, #14) that acts as a non-adhesive side and a layer of retroreflective beads that are partially embedded in the non-adhesive side of the single layer backing to about 30% of the diameters (Figure 1, #11; Column 3, lines 39 – 41), wherein the layer of retroreflective beads is substantially held in place in the non-adhesive side of the single layer backing without the use of an additional adhesive or resin (Figure 1, #11; Column 3, lines 39 – 41) for the purpose forming retroreflective images on a substrate including fabrics as well as other substrates (Column 1, lines 58 – 59).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided single layer of retroreflective beads in May in order to form retroreflective images on a substrate including fabrics as well as other substrates as taught by Harper et al.

With regard to the limitation of the tape being a medical tape in claim 43, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative

Art Unit: 1772

difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

With regard to claims 51 – 53, 55 and 57, one of ordinary skill in the art would have recognized the claimed retroreflective article would have a reflective brightness of the beads would be greater than 70 or 90% after 750 or 5,000 abrasion cycles since Harper et al. teach single layer articles with retroreflective microspheres embedded in the non-adhesive side. Therefore, one of ordinary skill in the art would have readily determined the optimum reflective brightness after the abrasion cycles depending on the end desired results in the absence of unexpected results.

The limitations of “coating the first side of the foam backing”, “covering the second side of the foam backing” and applying heat and pressure to partially embed the retroreflective beads” in claims 49 and 50 are process limitations. The determination of patentability for a product claim with a process limitation is based on the product itself and not on the method of production. In this case, the limitations of coating, covering and applying heat pressure are methods of production and therefore do not determine the patentability of the product itself. The method of forming the product is not germane to the issue of patentability of the product itself. MPEP 2113.

Art Unit: 1772

Response to Arguments

5. Applicant's arguments with respect to claims 42 and 44 - 59 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (571) 272-1496. The examiner can normally be reached on Mon.-Thurs. from 7:00-4:30 & alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia L. Nordmeyer
Examiner
Art Unit 1772

pln
pln

[Signature]
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772 3/9/08